



---

A.D. 1871, 26th SEPTEMBER. N<sup>o</sup> 2540.

---

S P E C I F I C A T I O N

OF

JOHN WHITE.

---

APPARATUS FOR CONSUMING SMOKE.

---

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON BUILDINGS, HOLBORN.

1872.





---

A.D. 1871, 26th SEPTEMBER. N° 2540.

---

## Apparatus for Consuming Smoke.

---

*(This Invention received Provisional Protection only.)*

PROVISIONAL SPECIFICATION left by John White at the Office of the Commissioners of Patents, with his Petition, on the 26th September 1871.

I, JOHN WHITE, of Edinburgh, in the County of Mid Lothian,  
5 North Britain, Mill Master, do hereby declare the nature of the said Invention of "IMPROVEMENTS IN BURNING OR CONSUMING SMOKE AND IN APPARATUS EMPLOYED THEREFOR," to be as follows, that is to say :—

This Invention has for its object to burn or consume the smoke escaping from the combustion of fuel in furnaces, thereby effecting  
10 economy in fuel ; and the apparatus or means by which the said object is effected consists of a chamber situated in that portion of the flue beyond the fire-grate.

The chamber is situated so that the flame and burning gases pass onwards through it from the fire-grate to the flues, and in the sides of  
15 the chamber a series of openings are formed through which the unburnt gases escape into side receptacles. The chamber is formed of fire-brick or other refractory material, and beneath it another chamber is situated divided throughout the greater portion of its length by a diagonal



---

*White's Improvements in Apparatus for Consuming Smoke.*

---

diaphragm, and air is drawn or forced by a fan or otherwise in under the lower side of the diaphragm, and arriving at its end furthest from the fire-bars rises to the upper side thereof, where coming into contact with the hot under surface of the chamber first referred to the air becomes heated and escapes through one or more openings at the fire 5 bridge as heated air, which mixing with the gases escaping from the fuel on the grate effects their more perfect combustion.

---

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,  
Printers to the Queen's most Excellent Majesty. 1872.